REMARKS

In this Preliminary Amendment, the specification and drawings have been amended to correct for a duplicated use of a reference numeral which was noted during the preparation of formal drawings in this application. No new matter is added. An early and favorable action is earnestly solicited. If there are any questions concerning the foregoing, please contact the undersigned at the number listed below.

Respectfully submitted,
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

Please replace the paragraph beginning at line 18 of page 22 with the following rewritten paragraph:

In particular, according to one embodiment, the AC global offset adjust controller 76A of Fig. 6 provides a dynamically adjusted time-varying waveform that compensates for self-heating effects of the detector 72. More specifically, as discussed above and in greater detail below in connection with Fig. 8, as a bias is initially applied to an enabled detector, the output 87 of the current sampler 82A indicates an instantaneous current component related to the initial flow of current through the detector, which begins to produce local heat. In response, the AC global offset adjust controller 76A provides an AC component to the detector bias current I_{BIAS} 81 (e.g., a saw tooth or other time-varying waveform) to compensate for this effect. As illustrated in Fig. 6, according to one embodiment, an output **[83]** **88** of the AC global offset adjust controller 76A is summed with an output 85 of the DC global offset adjust controller 78A at a summing node 84 to provide the global offset 66.

Please replace the paragraph beginning at line 15 of page 25 with the following rewritten paragraph:

Fig. 8 is a diagram showing an example of an analog circuit implementation for the current sampler and AC global offset adjust controller of Fig. 6, according to one embodiment of the invention. It should be appreciated that these examples are provided for purposes of illustration only, and that the invention is not limited to the particular circuit shown in Fig. 8. Similar to Fig. 7, in Fig. 8 the current sampler 82A and the AC global offset adjust controller 76A are implemented in a circuit that performs both functions. In particular, in Fig. 8, R1 is a low value (e.g., 10 Ohm) resistor, and the voltage drop across R1 is a measure of the average current drawn by bolometers of the array. Capacitor C1 is a high frequency bypass for resistor R1. A high gain AC amplifier comprising C2, Q1, Q2, R2, R3 and R4 amplify the AC (instantaneous) component of the current drawn by a row of detectors coupled to the supply voltage V_R 70. The amplified AC component is then detected by a synchronous rectifier

comprising C3 and Q3. The output of the synchronous rectifier is integrated by AR1, R5, and C4. The output voltage of the integrator controls the current through resistor R6. Capacitor C6 is periodically reset to a high voltage at an appropriate time by an analog switch connected to the point labeled open_d. When the voltage at open_d is not applied, capacitor C6 discharges at a rate determined by the current through R6, thereby generating an essentially saw tooth waveform. The waveform generated by this process is then provided as an output **[83]** 88 via transistor Q4, and ultimately is AC coupled into the summing node 84 shown in Fig. 6. The polarity of the feedback loop represented by the circuit in Fig. 8 is selected such that the AC component of the average current drawn by the bolometers from the supply voltage V_R 70 is reduced to approximately zero during the initial bias time of the detectors, thereby compensating for the self-heating effects discussed above.